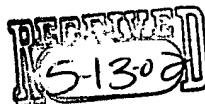


**Official**

Our Docket No.: 082771.P277

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

**Jagannath et al.**

Application No.: 09/109,343

Filed: 06/30/1998

For: **METHOD AND APPARATUS FOR  
VIRTUAL OVERLAY NETWORKS**Examiner: **Andy Lee**Art Group: **2663**

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5-22-02

**AMENDMENT AND RESPONSE TO THE OFFICE ACTION**

Assistant Commissioner for Patents  
BOX NON-FEE AMENDMENT  
Washington, DC 20231-9999

Sir:

In response to the outstanding Office Action, mailed January 14, 2002,  
please amend the above-identified application as follows:

**In the Description**

The paragraphs indicated below are amended as shown in the marked-up  
version that follows, showing all the changes relative to the previous version of the  
description.

Replace the paragraph on page 2, lines 15-22 with the following:

Packets destined from one user (say in Chicago in the illustration of  
Figure 1B) to another user (say in Boston in the illustration of Figure 1B)  
may be transmitted through an internet service provider (ISP) which

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01  
supports VPNs. Each site connected to the ISP network advertises to the ISP a set of destinations reachable within the site. The ISP then redistributes this information to all other sites in the set of sites which form the VPN. This process is further described in Heinanen, et al., VPN support with MPLS, Internet Draft, March 1998.

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Replace the paragraph on page 7, lines 9-24 with the following:

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02  
In the present invention such logically separated routed topologies are maintained for each VPN. A packet belonging to a VPN is identified by its VPN-ID. The VPN-ID is placed in the label field as defined by the Multi-protocol label switching standard, see Callon et al., A Framework for Multitprotocol Label Switching, November, 1997. In one embodiment, the VPN-ID is not used for forwarding, but merely identifies a routing table belonging to a particular VPN. In this embodiment the packet is forwarded by doing a standard IP destination address look-up on the table identified by the VPN-ID. In another embodiment, the VPN-ID identifies an MPLS forwarding table corresponding to the VPN where the MPLS forwarding table is built based on the routing table corresponding to the VPN. In a third embodiment, the VPN-ID is a part of the MPLS forwarding label. A single MPLS forwarding table is built based on a separate route table for each VPN and the forwarding is done by looking up the MPLS label (comprising of the VPN-ID part and a forwarding label part) in the forwarding table.

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Replace the paragraph on page 9, lines 7-10 with the following:

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03  
Turning first to Figure 3A, the label (e.g., VPN-ID 201) is used to identify a routing table for 304 or 305. The packet is then routed based on